

12679

RECORDATION NO. _____ Filed 1425

CRAVATH, SWAINE & MOORE

DEC 29 1980 -4 25 PM

ONE CHASE MANHATTAN PLAZA

NEW YORK, N. Y. 10005

212 HANOVER 2-3000

TELEX

RCA 233663

WUD 125547

WUI 620976

CABLE ADDRESSES

CRAVATH, N. Y.

CRAVATH, PARIS

CRAVATH, LONDON E.C. 2

INTERSTATE COMMERCE COMMISSION

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JOHN E. BEERBOWER12679
DEC 29 1980 -4 25 PM

INTERSTATE COMMERCE COMMISSION

No. 0-2031228

Date.. DEC. 29 1980

Fee \$ 150.00

RECORDATION NO. _____ Filed 1425

DEC 29 1980 -4 25 PM

ICC Washington, D. C.

INTERSTATE COMMERCE COMMISSION

Tidewater Grain Company-Early & Daniel Industries, Inc.
Lease Financing Dated as of November 15, 1980

Dear Ms. Mergenovich:

Pursuant to 49 U.S.C. § 11303 and the Commission's rules and regulations thereunder, as amended, I enclose herewith on behalf of Early & Daniel Industries, Inc., for filing and recordation counterparts of the following documents:

(1) Purchase Agreement Assignment dated as of November 15, 1980, among Tidewater Grain Company, as Assignor, C.I.T. Financial Services, Inc., as Assignee, and Pullman Incorporated (Pullman Standard Division), as Builder.

(2) Lease of Railroad Equipment dated as of November 15, 1980, between C.I.T. Financial Services, Inc., as Lessor, and Early & Daniel Industries, Inc., as Lessee.

(3) Sublease of Railroad Equipment dated as of November 15, 1980, between Early & Daniel Industries, Inc., as Sublessor, and Tidewater Grain Company, as Sublessee.

(next page) Assignment of Sublease

C. Dunlap — G. H. Harrison

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DOCKET FILES

C (4) Assignment of Sublease and Agreement dated as of November 15, 1980, by and between Early & Daniel Industries, Inc., as Lessee, and C.I.T. Financial Services, Inc., as Lessor.

The names and addresses of the parties to the aforementioned documents are as follows:

(1) Assignor-Sublessee:

Tidewater Grain Company
346 Public Ledger Building
Independence Square
Philadelphia, Pennsylvania 19106.

(2) Assignee-Lessor:

C.I.T. Financial Services, Inc.,
650 Madison Avenue
New York, N. Y. 10022

(3) Builder:

Pullman Incorporated (Pullman Standard
Division)
200 South Michigan Avenue
Chicago, Illinois 60604.

(4) Lessee-Sublessor:

Early & Daniel Industries, Inc.
902 West Washington Avenue
Indianapolis, Indiana 46204.

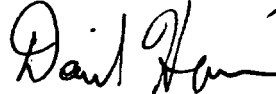
Please file and record the documents referred to in this letter and index them under the names of the Assignor-Sublessee, the Assignor-Lessor, Builder and the Lessee-Sublessor.

The equipment covered by the aforementioned documents consists of 50 4,750 Covered Hopper Cars bearing Lessee's road numbers TWGX2550-2599, and also bears the legend "Owned by C.I.T. Financial Services, Inc."

There is also enclosed a check for \$150 payable to the Interstate Commerce Commission, representing the fee for recording the Purchase Agreement Assignment, the Lease of Railroad Equipment, Sublease of Railroad Equipment and Assignment of Sublease and Agreement (together constituting one document).

Please stamp all counterparts of the enclosed documents with your official recording stamp. You will wish to retain one copy of the instruments for your files. It is requested that the remaining counterparts be delivered to the bearer of this letter.

Very truly yours,



David Harari
As Agent for Early & Daniel
Industries, Inc.

Agatha Mergenovich, Secretary,
Interstate Commerce Commission,
Washington, D. C. 20423

Encls.

12679

RECORDATION NO. Filed 1425

DEC 29 1980 -4 25 PM

INTERSTATE COMMERCE COMMISSION

[CS&M Ref.: 1240-141]

PURCHASE AGREEMENT ASSIGNMENT

Dated as of November 15, 1980

Among

TIDEWATER GRAIN COMPANY,
Assignor,

C.I.T. FINANCIAL SERVICES, INC.,
Assignee,

and

PULLMAN INCORPORATED
(Pullman Standard Division),
Builder.

(Covering 50 4,750 CFC Covered Hopper Cars)

PURCHASE AGREEMENT ASSIGNMENT dated as of November 15, 1980, among TIDEWATER GRAIN COMPANY, a Pennsylvania corporation (the "Assignor"), C.I.T. FINANCIAL SERVICES, INC., a Delaware corporation (the "Assignee"), acting through its agent, C.I.T. CORPORATION, a New York corporation, and PULLMAN INCORPORATED (Pullman Standard Division), a Delaware corporation (the "Builder").

WHEREAS the Assignor and the Builder have entered into a purchase agreement (the "Purchase Agreement"), the form of which is attached hereto as Exhibit A, pursuant to which the Builder has agreed to construct and deliver to the Assignor, and the Assignor has agreed to purchase and take delivery of, the units of railroad equipment described in Schedule A hereto (the "Units");

WHEREAS the Assignee desires to purchase and take delivery of those Units as are delivered and accepted pursuant to the terms hereof on or prior to December 31, 1980 (such Units being hereinafter called the "Assigned Units" and such date being hereinafter called the "Cutoff Date"), and the Assignor desires to assign its rights to purchase and take delivery of the Assigned Units to the Assignee;

WHEREAS the Assignee has entered into a Lease of Railroad Equipment dated as of the date hereof (the "Lease") with Early & Daniel Industries, Inc., an Indiana corporation (the "Lessee") covering the Assigned Units;

WHEREAS the Assignor and the Lessee have entered into a Sublease of Railroad Equipment dated as of the date hereof (the "Sublease"), covering the Assigned Units; and

WHEREAS the Builder proposes, subject to the terms and conditions hereof, to transfer title to the Units to the Assignee pursuant to a bill or bills of sale as provided in Paragraph 5(ii) hereof to enable the Assignee to satisfy the Assignee's obligations under the Lease;

NOW, THEREFORE, in consideration of the mutual

covenants and agreements hereinafter set forth, the parties hereto hereby agree as follows:

1. The Assignor hereby assigns, transfers and sets over unto the Assignee, its successors and assigns:

(a) all the right, title and interest of the Assignor in and to the Assigned Units; and

(b) all the right, title and interest of the Assignor in and to the Purchase Agreement, insofar as the Purchase Agreement relates to the Assigned Units.

2. The Assignee accepts the assignments herein contained, and assumes the obligations of the Assignor under the Purchase Agreement to purchase the Assigned Units and agrees to pay the Purchase Price (as hereinafter defined) of the Assigned Units, but the Assignee assumes no other duties or obligations of the Assignor under the Purchase Agreement whatsoever; provided, however, that the Assignor shall remain liable to the Builder in respect of its duties and obligations (except as herein assumed or performed by the Assignee) in accordance with the Purchase Agreement; provided further, however, that the Builder shall not deliver hereunder any Unit unless on or prior to the date of delivery of the first such Unit hereunder the documents required to be delivered pursuant to § 15 of the Lease have been delivered, and the Assignee shall have no obligation to purchase and pay for any of the Assigned Units delivered prior to delivery of such documents; provided further, however, that the Builder shall not deliver hereunder any Unit subsequent to, and the Assignee shall have no obligation to purchase and pay for any of the Assigned Units delivered subsequent to, receipt by the Builder of a written notice from the Assignor, or the Assignee, notifying the Builder of (i) the occurrence of any Event of Default as described in § 10 of either the Lease or the Sublease, or any event which with lapse of time and/or demand, could constitute any such event of default; (ii) the commencement of a proceeding described in § 10(f) or 10(g) of the Lease or § 10(f) or 10(g) of the Sublease; or (iii) a material adverse change in the assets, liabilities, business or condition (financial or otherwise) of the Assignor or the Lessee, since the date of the last audited financial statements furnished to the Assignee pursuant to § 19(a)(J) of the Lease. In addition, the

Builder shall not invoice the Assignee, and the Assignee shall have no obligation to purchase and pay for, any of the Assigned Units delivered subsequent to the Cutoff Date. The Assignor affirms hereunder that it shall be solely obligated to purchase and pay for pursuant to the Purchase Agreement any Unit which is excluded from this Assignment because (A) it is delivered before the documents required to be delivered pursuant to § 15 of the Lease have been delivered, (B) it is delivered after the Builder shall have received any notice described in the third proviso to the first sentence of this Paragraph 2 or (C) such Unit is delivered after the Cutoff Date, but the Assignor shall have no obligation to the Builder to purchase, or make payment under the Purchase Agreement in respect of, any of the Assigned Units which the Assignee is obligated to purchase hereunder. The Builder hereby consents to the terms of this Assignment and accepts all its duties hereunder, including, without limitation, its duties as to termination of deliveries. The Builder also agrees to the limitation of the obligations of the Assignee to purchase and pay for the Assigned Units as set forth in this Assignment.

The term "Purchase Price" as used herein means with respect to each unit of the Assigned Units the purchase price of such unit as determined in accordance with the Purchase Agreement and as set forth in the invoice of the Builder for such unit; provided, however, that the purchase price of any Unit shall not include the cost of snubbers installed on such Unit such cost being borne by the Assignor and are the property of the Assignor.

3. The Assignor represents, warrants and agrees that:

(a) the Purchase Agreement is in full force and effect and is enforceable against the Assignor in accordance with its terms, and neither the Assignor nor to its best knowledge the Builder is in default thereunder;

(b) insofar as it relates to the Units, the Assignor is the lawful owner of its rights under the Purchase Agreement, free from all claims, liens, security interests and encumbrances, and the Assignor has the right to sell and assign the Purchase Agreement as set forth herein and the Assignor will warrant

and defend this Assignment against the lawful claims and demands of all persons; and

(c) none of the Units has been delivered by the Builder and no payment has been made in respect thereof to the Builder.

The Builder represents and warrants that:

(a) the Purchase Agreement is in full force and effect and is enforceable against the Builder in accordance with its terms and neither the Builder nor to its knowledge the Assignor is in default thereunder; and

(b) none of the Units has been delivered by the Builder and no payment has been received in respect thereof by the Builder.

4. The Assigned Units shall be settled for pursuant to the terms hereof on the closing date on or prior to January 15, 1981, as shall be agreed to by the Builder and the Assignee, but in any event not later than 15 days after the Builder has delivered an invoice with respect to the last Assigned Unit delivered pursuant to the Purchase Agreement to the Assignee (the "Closing Date").

5. With respect to Units settled for as Assigned Units pursuant to the terms hereof, on the Closing Date, the Assignee shall pay to the Builder the Purchase Price of such Assigned Units being settled for, provided that there shall have been delivered to the Assignee, on or prior to such Closing Date the following documents in such number of counterparts or copies as may reasonably be requested in form and substance satisfactory to the Assignee:

(i) a certificate of an officer of the Builder dated such Closing Date representing and warranting on behalf of the Builder that (A) the Assigned Units described and specified therein by numbers have been delivered on or prior to such Closing Date and have been marked with the following legend:

"OWNED BY C.I.T. FINANCIAL SERVICES, INC."

or such other words as shall be approved by the Assignee and (B) such Assigned Units are new

standard-gauge railroad equipment first put into service no earlier than the date of delivery and acceptance thereof by or on behalf of the Assignee;

(ii) a bill or bills of sale from the Builder transferring all right, title and interest of the Builder in and to such Assigned Units to the Assignee, warranting to the Assignee that at the time of delivery of such Assigned Units to the Assignee, the Builder had legal title to the Assigned Units described therein and good and lawful right to sell such Assigned Units and that title to such Assigned Units is free from all claims, liens, security interests and other encumbrances of any nature arising from, through or under the Builder and covenanting to defend such title to such Assigned Units against the demands of all persons whomsoever based on claims arising from, through or under the Builder or originating prior to the delivery of such Assigned Units by the Builder under this Assignment;

(iii) an opinion of counsel for the Builder, addressed to the Assignee, in form and substance satisfactory to the Assignee and its counsel, to the effect that (A) the Assigned Units being settled for are free of all claims, liens, security interests and other encumbrances of any nature arising from, through or under the Builder, and (B) such bill or bills of sale have been duly authorized, executed and delivered by the Builder and are valid and effective to transfer all right, title and interest of the Builder in and to such Assigned Units, free of all claims, liens, security interests or other encumbrances of any nature arising from, through or under the Builder, to the Assignee;

(iv) an invoice or invoices with respect to such Assigned Units from the Builder to the Assignee describing such Assigned Units having endorsed thereon the certification of the Assignor as to the correctness of the prices stated therein; and

(v) Certificates of Acceptance (as defined in the Lease) covering such Assigned Units.

6. No variation or modification of the Purchase Agreement, except as herein provided, and no waiver of any of its provisions or conditions shall be valid with

respect to any of the Assigned Units unless in writing and signed by a duly authorized signatory for the Assignee.

7. The Builder represents that it is not entering into this Assignment, or into any other transaction contemplated hereby, directly or indirectly in connection with any arrangement or understanding in any way involving any employee benefit plan (other than a governmental plan) with respect to which it or, to its knowledge, the Assignor or the Assignee or the Lessee is a party in interest, all within the meaning of the Employee Retirement Income Security Act of 1974.

8. This Assignment shall be governed by and construed in accordance with the laws of the State of New York.

9. This Assignment may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, and such counterparts together shall constitute but one and the same contract, which shall be sufficiently evidenced by any such original counterpart. It shall not be necessary that any counterpart be signed by all the parties so long as each party hereto shall have executed and delivered one counterpart hereof. Although this Assignment is dated for convenience as of the date specified in the introductory paragraph of this Assignment, the actual date or dates of execution hereof by the parties hereto is or are, respectively, the date or dates stated in the acknowledgments hereto annexed.

IN WITNESS WHEREOF, the parties hereto have caused this Assignment to be executed by their respective duly authorized officers, all as of the date first above written.

TIDEWATER GRAIN COMPANY,

by

[Corporate Seal]


Chairman

Attest:


Secretary

C.I.T. FINANCIAL SERVICES, INC.,

by C.I.T. CORPORATION, as Agent,

by

[Seal]

Authorized Officer

Attest:

PULLMAN INCORPORATED
(Pullman Standard Division),

by

[Corporate Seal]

RC Smyth
Vice President-Freight Unit

Attest:

William O'Connell
Assistant Secretary

C.I.T. FINANCIAL SERVICES, INC.,

by C.I.T. CORPORATION, as Agent,

by

Keith L. Fitch, Vice Pres.
Authorized Officer

[Seal]

Attest:

Leo Shum
Assistant Secretary

PULLMAN INCORPORATED
(Pullman Standard Division),

by

Vice President-Freight Unit

[Corporate Seal]

Attest:

Assistant Secretary

STATE OF *Indiana*

COUNTY OF *Marion*

,)
) ss.:
,)

On this *24th* day of December 1980, before me personally appeared *Samuel M. Harrell*, to me personally known, who, being by me duly sworn, says that he is the Chairman of TIDEWATER GRAIN COMPANY, that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed on behalf of said Corporation by authority of its Board of Directors and he acknowledged that the execution of the foregoing instrument was the free act and deed of said Corporation.

Jeanne M. Powers
Notary Public
JEANNE M. POWERS

[Notarial Seal]

My Commission
Expires: June 8, 1981

I am a resident of
Marion County, Indiana

STATE OF NEW YORK,)
) ss.:
COUNTY OF NEW YORK,)

On this *23* day of December 1980, before me personally appeared *Keith L. Fitch*, to me personally known, who, being by me duly sworn, says that he is a *Vice President* of C.I.T. CORPORATION, that one of the seals affixed to the foregoing instrument is the seal of said Corporation and that said instrument was signed and sealed on behalf of said Corporation by authority of its Board of Directors and he acknowledged that the execution of the foregoing instrument was the free act and deed of said Corporation.

Michael T. Concanan
Notary Public

[Notarial Seal]

STATE OF ILLINOIS,)
) ss.:
COUNTY OF COOK,)

On this 23rd day of December 1980, before me personally appeared R.C. SNYDER, to me personally known, who, being by me duly sworn, says that he is a Vice President-Freight Unit of PULLMAN INCORPORATED (Pullman Standard Division), that one of the seals affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed on behalf of said Corporation by authority of its Board of Directors and he acknowledged that the execution of the foregoing instrument was the free act and deed of said Corporation.

Christine Shier
Notary Public

[Notarial Seal]

My Commission
expires 9/3/84

SCHEDULE A
to Purchase Order Assignment

<u>Type</u>	<u>Place of Delivery</u>	<u>Quantity</u>	<u>Lessee's Road Numbers (inclusive)</u>
4,750 CFC Covered Hopper Cars AAR Mechanical Designation: LO	Butler, Pennsylvania	50	TWGX 2550-2599

EXHIBIT A

Pullman Standard

Freight Unit

200 South Michigan Avenue
Chicago, Illinois 60604
(312) 322-7070

December 9, 1980

Mr. Roger Larkin
President
Tidewater Grain Company
Independence Square
Philadelphia, PA 19106

Dear Mr. Larkin:

PULLMAN STANDARD (hereinafter called "Seller") hereby offers to construct for, sell and deliver to TIDEWATER GRAIN COMPANY or its Assignee (hereinafter called "Buyer") 100-Ton, 4750 CFC, Covered Hopper Cars in accordance with Seller's Specification No. 1159 dated November 7, 1980, last revised December 5, 1980, copies which are enclosed and made a part hereof. Pursuant to said specification, the cars have been constructed with truck snubbing devices. The obligation to pay for the truck snubbing devices shall not be assigned but shall be the obligation of Tidewater Grain Company. Tidewater Grain Company shall pay directly to the Seller the amount of \$525.00 per car for the installation of truck snubbing devices. This amount is not included in the per car price hereinafter quoted.

The price quoted is not subject to escalation with the understanding that Seller controls the source of supply and the transportation of specialties and materials entering into the construction of these cars.

The labor portion of this offer is made with the understanding that all cars will be shipped on or before December 31, 1980. If cars are delayed beyond this date, labor escalation would be applicable under Seller's normal terms.

Price quoted is further subject to terms and conditions as set forth herein and in Attachments listed below and made a part hereof, which, together with this letter constitute Seller's proposal.

ATTACHMENT:

FORM 1

General Conditions

BASIS FOR PRICE:

QUANTITY:

50 Cars

PLANT BASIS:

Butler, Pennsylvania

Mr. Roger Larkin

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December 9, 1980

BASIS FOR PRICE (CONT.):

DELIVERY POINT:

F.O.B. Tracks
Butler, Pennsylvania

DELIVERY COMMENCING:

Immediately

PRICE PER CAR:

\$40,000.00 F.O.B. Tracks
Seller's Plant
Butler, Pennsylvania

CANCELLATION:

Notwithstanding any past practice by the Seller or past industry practice, in the event that the Buyer cancels the contract, the Buyer will pay the Seller cancellation charges equal to the value of all disbursements and expenses which the Seller has incurred or become obligated for prior to the date of cancellation, including all labor and material costs and normal overhead, less the reasonable resale value of material which will have been obtained or ordered to become an integral part of the equipment, plus a sum of ten percent of the purchase price of the equipment.

GENERAL:

This proposal is sent to Buyer in duplicate and the return of one copy to Seller with Buyer's signature affixed thereon in the place designated will constitute a Purchase Agreement between Buyer and Seller for these cars.


Mr. Roger Larkin

-3-

December 9, 1980

Any questions or information desired in connection with this transaction should be referred to Peter Urban.

Yours very truly,


HUGH W. FOSTER
Senior Vice President,
Sales and Marketing

ARZ/laj

cc: Mr. Albert J. Feldman, ESQ.

Peter R. Urban
Pullman Standard
(312) 322-7073

Enclosures

In duplicate

ACKNOWLEDGED AND ACCEPTED:

TIDEWATER GRAIN COMPANY

BY: _____

DATE: _____

FORM I
GENERAL CONDITIONS ATTACHED TO AND
MADE A PART OF PROPOSAL DATED
DECEMBER 9, 1980 OF PULLMAN INCORPORATED
(PULLMAN STANDARD DIVISION) TO
TIDEWATER GRAIN COMPANY

ACCEPTANCE OF CARS: Upon delivery of cars to the authorized representative of Buyer at place designated for delivery, Buyer or its authorized representative will execute and deliver a Certificate of Acceptance and counterparts as requested and Seller will deliver to Buyer a Bill of Sale.

SPECIFICATIONS: Cars ordered under this proposal will be constructed in accordance with building specification bearing lot number assigned to the particular order, and such building specification will incorporate all of the features of proposal specification as well as all changes that have been mutually agreed upon between Buyer and Seller. Seller will advise Buyer the lot number of building specification, and this new number will be incorporated in all contract papers.

In the event that it shall become impossible for Seller to secure any materials required for the building of these cars in exact accordance with specification requirements, by reason of Government regulations, or by reason of priorities given to defense orders, or for any other reason beyond the control of Seller, the Seller may make changes in the specifications not materially affecting the strength or efficiency of the cars and the Buyer agrees that it will not unreasonably withhold its consent to such substitutions.

INSPECTION: Seller will give Buyer full opportunity to inspect cars during construction at Seller's plant. On completion of each car, Buyer will arrange for final inspection thereof at Seller's plant, and Buyer's representative will execute the usual form of certificates of inspection covering all cars found to be completed in accordance with the specifications and will deliver said executed certificate to Seller at Seller's plant at time of final inspection.

DELIVERY: The delivery of the cars is contingent upon date of acceptance of this offer, upon Seller's ability to secure steel and other materials to enable Seller to meet production requirements for these cars, as well as for cars which Seller now has on order which precede these cars in Seller's schedule. Time of delivery is also subject to prior sale of space, prompt settlement of all details and to delays due to strikes, fires, accidents, or any other causes or contingencies beyond Seller's control. Under no circumstances will delay in delivery of cars not due to Seller's willful act or gross negligence be considered as a default under this proposal; nor shall application of price adjustment provisions on account of changes in material prices (when applicable) or in labor adjustment

(when applicable) be restricted by reason of such delays; nor will Seller be under obligation to arrange for shipment and acceptance of any required materials in advance of its actual needs.

MODIFICATION OF AGREEMENT: This Agreement constitutes the entire agreement between the Buyer and the Seller with respect to the sale of the cars herein referred to. No variation or modification of this Agreement, and no waiver of any of its provisions or conditions, shall be valid unless in writing and signed by the duly authorized officers of the Seller and Buyer.

TERMS OF PAYMENT: Buyer shall wire transfer federal funds to Seller for the full amount of purchase price of the cars covered by each invoice within ten (10) business days after the date of such invoice. The term "business days" means calendar days excluding Saturdays, Sundays and legal holidays. If such invoice is not paid within ten (10) business days, Buyer will, commencing on the eleventh business day until the date of payment, pay Seller an amount equal to interest at 120% of the Prime Rate on the invoice price. (Computation will be on the basis of a 360 day year.) The Prime Rate shall mean the annual rate charged from time to time by the Mellon Bank N.A., Pittsburgh, Pennsylvania for 90-day unsecured loans to borrowers of the highest credit standing.

TAXES: In addition to the price of the cars, Buyer shall reimburse Seller in cash, on demand, for any local, State or Federal Taxes (other than net income, excess profits and similar taxes) or licenses, not including penalties, interest, and expenses in connection therewith, levied or imposed upon and paid by Seller with respect to, or measured by the sale of, use, payment, shipment, delivery or transfer of title to the cars under any law, rule, regulation, or order of any governmental authority.

PATENTS: Seller will indemnify, protect and defend Buyer and its Lessee and Sublessee against all liabilities, claims, costs, charges and expenses (including royalties and counsel fees), that may arise from any claim that the use of any material, article or design in the manufacture of these cars constitutes an infringement of any patent, except with respect to any material, article or design specified by Buyer and not manufactured by Seller or which is furnished or supplied by Buyer.

WARRANTY: Seller guarantees to build the cars in accordance with the applicable specifications, and that the cars will be free from defects in material and workmanship under normal use and service, Seller's obligation under this warranty shall be limited to making good, replacing or installing at its plant any part or parts of any car which shall be returned to the Seller within one year after delivery of such car, with transportation charges prepaid and which Seller's examination shall disclose with satisfaction such part or parts to have been thus defective; provided, however, this warranty shall be subject to the following exclusions and conditions:

1. Items or specialties, specified or supplied by the Buyer and not manufactured by the Seller, are excluded from this warranty. This exclusion also applies to exterior and interior paint applications and related materials.
2. Warranty coverage on car running gear and contact points to car structure is limited to one (1) year or 25,000 miles, whichever first occurs. (Car running gear and contact points to car structure utilize components to A.A.R. specifications to provide maximum car service life. The direct relationship between car mileage and service life limits the coverage of these components as specified in this item 2.)
3. Normal use and service may require inspection, adjustment, maintenance, and compliance with all regulatory agencies' known requirements and/or Seller's instructions. This obligation is the Buyer's responsibility and such performance is necessary to preserve stated warranty coverage.

THIS WARRANTY COVERAGE IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND OF ALL OTHER OBLIGATIONS OR LIABILITY ON THE PARTY OF THE SELLER. THE SELLER SHALL NOT BE LIABLE FOR INDIRECT, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND.

Neither inspection nor acceptance of any cars as provided in these General Conditions shall be deemed a waiver or modification by Buyer of any rights under the warranty.

Seller warrants that the equipment is new property, built in the United States of America and built with all new components and that no car has been placed in use or service by any person prior to acceptance by Buyer.

ENFORCEABILITY: This Agreement and General Conditions shall be enforceable by the Buyer, its Lessee and Sublessee.



Pullman Standard

P. O. Box 71
Butler, Pennsylvania 16001
(412) 287-5765

November 7, 1980

BUILDING SPECIFICATION

FOR

50 - PS-2-CD - 100-TON COVERED HOPPER CARS

(4750 CU. FT. CAPACITY)

LOT 1159

FOR

TIDEWATER GRAIN

CAR SERIES NUMBERS: TWGX 2550-2599

GENERAL ARRANGEMENT DRAWING M-042-922

BUTLER, PENNSYLVANIA

REVISIONS MADE TO THIS SPECIFICATION ARE AS FOLLOWS:

<u>DATE</u>	<u>PAGE NO.</u>	<u>SECTION NO.</u>
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12-5-80	25	20

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1. GENERAL DIMENSIONS

Length Inside -----	55'-3-9/16"
Length Over End Sills -----	55'-4"
Length Over the Strikers -----	57'-4"
Length Over the Pulling Face of Couplers -----	59'-11-1/2"
Length - Center to Center of the Bolsters (Truck Centers) -----	45'-9"
Length Over the Running Boards -----	57'-10"
Length of the Trough Hatch Opening -----	47'-8"
Width Inside -----	10'-0-1/2"
Width Over the Side Plates -----	10'-0-13/16"
Width Over the Side Sills -----	10'-5-3/16"
Width Over the Side Posts -----	10'-5-1/4"
Width Over the Side Sill Steps -----	9'-7-1/4"
Width of the Trough Hatch Opening -----	2'-0"
Height - Top of Rail to Top of Trough Hatch Holddown -----	14'-10-1/32"
Height - Top of Rail to Top of Running Boards -----	14'-7-13/16"
Height - Top of Rail to Top of Side Plate -----	13'-4-15/16"
Height - Bottom of Side Sill to Top of Side Plate -----	8'-5-1/2"
Height - Top of Rail to Bottom of Side Sill -----	4'-11-7/16"
Height - Top of Rail to Center Line of Draft -----	2'-10-1/2"
Height - Top of Rail to Underside of Center Sill -----	2'-4-3/8"
Height - Top of Rail to Bearing Surface of Center Plate -----	2'-1-1/2"
Height - Top of Rail to the Discharge Outlet -----	0'-11" Approx
Truck Wheel Base -----	5'-10"
Side Bearing Centers -----	4'-2"
Number of Discharge Openings -----	3
Discharge Opening Size -----	24" x 30"
Number of Roof Hatch Openings -----	1 (Trough)
Slope of Floor Sheets -----	45 Degrees
Cubic Capacity -----	4,750 Cu. Ft.
Estimated Light Weight with one (1) Wear Wheels -----	60,000 Lbs.
Center of Gravity - Loaded Car -----	94.72"
Center of Gravity - Empty Car -----	61.05"
Gross Rail Load -----	263,000 Lbs.

DRAWING

General Arrangement ----- M-042-922

2. GENERAL

This specification describes a Pullman Standard 4,750 cubic foot capacity covered hopper car with triple compartment (hopper) construction, designed especially for dry bulk lading.

The car is covered with an all steel arc welded carline free roof formed into a combined step and curved arch, equipped with a trough hatch opening and four (4) fiberglass hatch covers.

2. GENERAL - (Continued)

Each compartment (hopper), three (3) per car with center discharge, is equipped with one (1) sliding door gravity gate, 24" x 30" opening, with door operating mechanism designed to operate individually.

The 6-1/2" x 12" journals provide for a 263,000 pound gross rail load.

The car is built in adherence to AAR and FRA Rules and Regulations, within the AAR Clearance Diagram Plate "B".

The car conforms to AAR Specifications for Design, Fabrication, and Construction of Freight Cars, Paragraph 4.1.3 for a uniformly distributed load.

This car meets the requirements of the AAR Design Specification Paragraph 2.1.2.2 for Bending and Shear Limits as determined by the AAR Technical Center Fortran Program entitled, "Moment and Shear Tables for Heavy Duty Cars on Bridges."

This car is provided with lifting provisions in accordance with AAR Standard S-234-78, Page C-115.

This car is built in a substantial and workmanlike manner, according to the true intent of this specification and the drawing. This specification is intended to include information requisite to the proper building of the car, notwithstanding that everything required may not be mentioned. When delivered, each car is complete in all of its parts and ready for service. In the event of any discrepancies between the drawing and this specification, the specification has preference.

On completion of construction of cars, Pullman Standard will furnish to the customer one (1) complete deck of 35mm microfilm copy cards and one (1) deck of EAM cards (slave cards). The microfilm copy cards will be our standard diazo second generation cards, (color; green) and standard 80-80 column cards with a computer-generated drawing list. Microfilm copy cards will include all Pullman Standard engineering pertinent to the construction of the cars.

Specialty manufacturer's drawings (microfilm copy cards) will not be furnished by the car builder.

3. CURVE NEGOTIABILITY

This Pullman Standard design covered hopper car, 57'-4" long over the strikers, 59'-11-1/2" long over the pulling face of the couplers, 45'-9" truck centers, and equipped with standard E60C-HT couplers and standard Y40A-HT coupler yokes, will negotiate the following radii curves.

3. CURVE NEGOTIABILITY - (Continued)

- a. 150-foot radius curve (39 degrees approx.) uncoupled.
- b. 150-foot radius curve (39 degrees approx.) two (2) cars coupled together on the curve.
- c. 228-foot radius curve (25 degrees approx.) into a level tangent track with no easement, coupled to a conventional AAR 40-foot base car having 7-degree coupler angling with the 40-foot car on a tangent track.
- d. 229-foot radius curve (25 degrees approx.) into a level tangent track with no easement, two (2) cars coupled together if one (1) car is on a tangent track and the other car is on the curve.
- e. 530-foot radius vertical curve (10 degrees approx.) into a level tangent track with no easement, two (2) cars coupled together.

The AAR base car is 42'-0-3/8" long over the strikers, 44'-7-7/8" long over the pulling face of the couplers, 31'-1-3/8" truck centers, and equipped with standard couplers and coupler yokes.

4. TOLERANCES

As specified in the AAR Specifications for Design, Fabrication, and Construction of Freight Cars.

5. TESTING

One (1) car is curve tested with simulated truck springs solid on a 150-foot radius curve to insure necessary clearances.

Brake pipe restriction tests are to be performed in accordance with AAR Specification No. 2518.

Brake efficiency tests are to be performed in accordance with AAR requirements.

Each car is completely water tested on the sides, ends, roof, and bottom and then inspected to assure there is no leakage.

6. MATERIAL

Steel, unless otherwise specified, is in accordance with the following.

(OHS) - Pullman Standard Specification No. 517

Conforms to the general requirements for ASTM A6,
"General Requirements for Delivery of Rolled Steel"

6. MATERIAL - (Continued)

(OHS) - Pullman Standard Specification No. 517 - (Continued)

Plates, Shapes, Steel Piling, and Bars for Structural Use." It is similar to ASTM A-568, latest revision, Grade "A" steel with a reduced carbon content to achieve low temperature impact strength and improved weldability. Manganese and copper additives provide additional strength and corrosion resistance respectively.

All OHS shapes, plates, bars and sheets, 1/4" and less in thickness, are copper bearing (.20% min. - .30% max.).

(HSS) - Pullman Standard Specification No. 550

High strength, low alloy structural manganese vanadium steel with improved low temperature impact properties. It has tensile and bend test requirements that conform to ASTM A-441 steel. The chemical composition also conforms to ASTM A-441 steel, except without copper content, unless otherwise specified on steel items over 1/4" in thickness.

(HSS) - Pullman Standard Specification No. 551

This specification covers high strength, low alloy, Columbium and/or Vanadium hot-rolled steel sheet and strip in either cut lengths or coils. It consists basically of chemical and mechanical properties consistent with ASTM A-607, Grade 45, except the carbon content is controlled to achieve superior welding and impact properties.

(HSS) - Pullman Standard Specification No. 552

This specification covers high strength, low alloy, Columbium and/or Vanadium hot-rolled steel sheets and strips in either cut lengths or coils. It consists basically of chemical and mechanical properties consistent with ASTM A-607, Grade 50, except the carbon content is controlled to achieve superior welding and impact properties.

All HSS shapes, plates, bars, and sheets 1/4" and less in thickness are copper bearing (.20% min. - .30% max.).

Rivets are per latest AAR Specification.

6. MATERIAL - (Continued)

All bolts and nuts are American Standard, regular sizes, except as may be otherwise specified herein.

Bolts and nuts are Class 2 fit.

7. UNDERFRAME CONSTRUCTION

a. Center Sill

The center sill consists of two (2) CSC13 @ 41.2# (PS 550 HSS) AAR Alternate Standard channel center sill sections extending between the draft sill weldments to 13" inward of the center line of bolster and welded the full length at the junction of the top horizontal flanges. The weld penetration is in accordance with AAR Plate 526, latest revision, or better.

The center sill bottom tie plates are 1/4" (AISI M-1012 MBQ) flat plates welded to the center sill bottom flanges.

b. Draft Sills - Fabricated

Each fabricated draft sill arm located at end of car consists of two (2) CZ13 @ 41.2# (PS 550 HSS) zee center sill sections extending from striker to thirteen inches (13") beyond the center line of bolster. The sections are welded at the junction of the top horizontal flanges with 100% penetration. Provisions are made for welding the draft sills to the CSC13 @ 41.2# AAR Alternate Standard channel center sill sections located between the body bolsters.

c. Strikers

The strikers are a Pullman Standard built-up welded design with a 3/8" (PS 550 HSS) pressed channel type coupler carrier, arranged for a pressed channel type coupler carrier wear plate (269-341 Brinell hardness).

d. Draft Gear Pockets

The draft gear pockets are 12-7/8" between draft sill webs and longitudinally 24-5/8" between the front and the rear draft lugs.

e. Front Draft Lugs

The front draft lugs are forged steel securely welded to the inside of the draft sill webs, meeting AAR design requirements.

f. Rear Draft Lugs

The rear draft lugs are built-up welded design, securely welded to the inside of the draft sill webs, meeting AAR design requirements.

7. UNDERFRAME CONSTRUCTION - (Continued)

g. Draft Gear Carriers

The draft gear carriers are 8" x 5/8" (AISI M-1012 MBQ) plates, one (1) per pocket, (AAR Alternate Standard) riveted to the draft sill bottom flanges with six (6) 7/8" diameter rivets.

h. Draft Gears

AAR approved, high capacity type, Specification M-901-E, for a 24-5/8" draft gear pocket. The coupler horn clearance is 3-3/4".

i. Couplers

The couplers are AAR Standard, E60C-HT, with a solid butt and a 6-1/4" x 8" x 21-1/2" long rigid shank with a recess on the bottom for a 5" x 1/4" x 8" long hardened wear plate. Material is Grade "C" cast steel. The locklift assembly is an E-24 rotary articulated type. The couplers are manufactured in accordance with AAR Specification M-211, latest revision. The knuckle pivot pins are manufactured in accordance with AAR Specification M-118, latest revision.

j. Coupler Yokes

The yokes are AAR Standard for "E" couplers, Y40A-HT Grade "C" cast steel with 24-5/8" draft gear pocket, manufactured in accordance with AAR Specification M-211, latest revision.

k. Coupler Keys & Retainers

The coupler keys are 6" x 1-1/2" half-round edge sections hardened to 179-220 BHN. Material is ASTM Specification A-576, latest revision, Grade C-1045 SBQ steel.

The coupler keys are held in place with AAR type hairpin retainers.

l. Body Bolsters

The slope sheet end webs are 5/16" (PS 517 OHS) extending between bolster posts. The top of the slope sheet end web is flanged to conform to the slope of the end slope sheet.

The body bolster top cover plate is 12" x 1/2" (PS 550 HSS) and extends between the 3/4" (PS 550 HSS) combined roping staple and jacking pad web at the sides of the car and passes over the top of the draft sill.

7. UNDERFRAME CONSTRUCTION - (Continued)

1. Body Bolsters - (Continued)

Two (2) 5" x 7/16" (AISI M-1012 MBQ) slope sheet end web stiffeners are applied on the outside of the slope sheet end web extending vertically from the body bolster top cover plate.

On the inside of the slope sheet end web two (2) 4" x 5/16" (AISI M-1012 MBQ) body side bearing stiffeners are applied vertically from the body bolster top cover plate.

The slope sheet end web is stiffened at the center sill by two (2) 1/4" (PS 517 OHS) slope sheet end supports in the area between the draft sill, slope sheet end web and the end slope sheet.

The body side bearing braces are S8 @ 23# (PS 517 OHS) I-beam sections applied vertically, welded to the under-surface of the body bolster top cover plate and to the 21" x 7/16" (PS 517 OHS) body bolster bottom cover plate which extends under the draft sill between side bearings. A 5/16" (PS 517 OHS) body bolster web is welded to the web of the I-beam section, the web of the draft sill, and the body bolster top and bottom cover plates.

m. Side Bearings

The body side bearings are 4" x 5/8" steel bar, ASTM Specification A-576, latest revision, Grade C-1095 SBQ steel having .90% - 1.03% carbon and 277-341 Brinell hardness. The hardened bearings are riveted to the body bolster bottom cover plates.

Side bearing clearance is 3/16" minimum - 5/16" maximum per bearing. Total clearance at the BR and AL bearing is the same as at the BL and AR bearing, with permissible variation not to exceed 1/8".

n. Body Center Plates and Center Filler

The body center plates and center filler are cast steel, Low-Profile type, designed for 100-ton capacity cars.

The bowls are AAR contour, 13-7/8" diameter, flame hardened to 300 minimum BHN, Pattern No. BS-340-AFH.

8. INTERIOR CONSTRUCTION

a. Partitions

The partitions, two (2) per car, are 3/16" (PS 517 OHS) extending between the sides of the car and from the underside of the 3" x 3/4" (PS 550 HSS) partition top connection at the roof line to 11/16" below the apex of the sloping floor sheets at the partition. The partition provides a clear opening of 10-1/2" from the top of the coaming and for the full length of the hatch opening.

The partition slope sheets are 3/16" (PS 551 HSS), extending between the sides of the car and from the partition to the discharge gates. The slope sheets extend from side to side in three (3) pieces joined with longitudinal welds.

The underside of the partition slope sheet at the apex is supported by a 6" x 3/16" (PS 517 OHS) plate welded to the partition slope sheets perpendicular to the partition sheet and extends between the sides of the car.

The partition slope sheets are stiffened at the center sill with 1/4" (PS 517 OHS) supports, in the area between the center sill and the slope sheets.

b. Interior Ladder Treads

This specification does not include interior ladder treads for entry into the car.

c. Sloping Floor Sheets

The top end floor sheets are 7/32" (PS 517 OHS) extending between the corner posts and from the underside of the 3" x 3/8" (AISI M-1012 MBQ) end floor sheet top connection at the roof line to the slope sheet end web and between the sides of the car, and slope 40 degrees to the horizontal. The side and center (intermediate) floor sheets are 3/16" (PS 551 HSS), and extend from side to side in three (3) pieces, joined with longitudinal welds, and from the slope sheet end web to the discharge gates. The sloping floor sheets are flanged for welding to the sides of car, and slope 45 degrees from the horizontal.

2" diameter vent holes and covers are provided in the top of the top end floor sheets.

d. Outside Hopper Sheets

Six (6) per car, 3/16" (PS 551 HSS) extend from the side of the car to the discharge gates and between the sloping floor sheets.

8. INTERIOR CONSTRUCTION - (Continued)

e. Vibrator Fittings

Six (6) per car, Pullman Standard design, each welded to a 3/8" (PS 517 OHS) backing plate which is applied to the outside hopper sheet with 5/8" diameter welding studs and elastic stop nuts.

f. Longitudinal Hood Sheets

Three (3) per car, of 5/32" (PS 517 OHS) extend between the floor slope sheets over the center sills.

g. Hopper Sheet Closing Piece Under Center Sills

Three (3) per car, 1/4" (PS 551 HSS), extend between the sloping floor sheets under the center sill.

9. DISCHARGE MECHANISM

Each hopper, three (3) per car, is equipped with a sliding gravity discharge gate, 24" x 30" opening, with door operating mechanism designed to operate individually. Gate clearance above the rail is approximately 11".

10. SIDE CONSTRUCTION

a. Side Sills

Two (2) per car, 6" x 2-1/2" x 5/16" (PS 517 OHS) cold formed angles extend from end to end of the car. The 6" leg of the angle is in the vertical position and the 2-1/2" leg is turned outward from the longitudinal center line of the car.

The side sills are reinforced at the ends with 6" x 2-1/2" x 5/16" (PS 517 OHS) cold formed side sill reinforcement angles with riveted application. The 6" leg of the angle is in the vertical position and the 2-1/2" leg is turned inward toward the longitudinal center line of the car.

b. Side Plates

Two (2) per car, 6" x 6" x 5/16" (PS 551 HSS) cold formed angles extend the full length of the car.

c. Side Posts

Thirty-six (36) side posts per car are 7/32" (PS 552 HSS) cold formed hat sections, 2-7/32" deep. All the side posts extend from the side sill to the side plate, welded thereto and to the side sheets.

d. Side Sheets

The side sheets are 5/32" (PS 517 OHS). The intermediate side sheets extend between the side sill, side plate, and bolsters, and are butt-welded to each other, and to the end side sheets at the bolsters, and are welded to the slope and hopper sheets, side posts, side sill, and side plate.

The end side sheets, four (4) per car, of 5/32" (PS 517 OHS) extend between and weld to the side plate, end slope sheet, and to the intermediate side sheets at the bolster.

e. Card Boards

Two (2) per car, mounted on side sill at "AL" and "BR" corners.

f. Roping Staples

Four (4) per car, 3/4" (PS 550 HSS) plates are welded to the horizontal leg of the side sill and to the body bolster top cover plate and slope sheet end web.

10. SIDE CONSTRUCTION - (Continued)

g. Side Ladder Stiles

Four (4) per car, 2-1/2" x 2" x 1/4" (AISI M-1012 MBQ) rolled angles.

11. END CONSTRUCTION

a. End Sills

Two (2) per car, 5" x 3-1/2" x 3/8" (PS 550 HSS) rolled angles extend between corner posts and side sills and rivet to the draft sills.

b. End Posts

Three (3) per car, 2-7/8" x 2-1/2" x 5/16" (PS 517 OHS) cold formed angles -- two (2) at the "A" end and one (1) at the "B" end. At the "B" end of the car, two (2) Z3 @ 9.8# (PS 550 HSS) rolled zee sections provide support for the hand brake. Additionally, two (2) per car, 2-1/2" x 2-1/2" x 1/4" (AISI M-1012 MBQ) rolled angles -- one (1) per end -- serve as ladder stiles on the "BL" and "AR" quarters.

c. Corner Posts

Four (4) per car, 3-1/2" x 3-1/2" x 1/4" (PS 517 OHS) cold formed angles.

d. Diagonal Braces

Four (4) per car, L5" x 3-1/2" x 3/8" (PS 517 OHS) rolled angles weld to the end sill and to the body bolster top cover plate.

e. Uncoupling Device

The uncoupling device is a Pullman Standard design of one inch (1") diameter (AISI C-1020 SBQ) steel for operating a bottom operated coupler with E-24 articulated rotary lock-lift assembly.

f. End Platforms

Two (2) per car, AAR approved, perforated, galvanized steel.

12. ROOF DETAILS

a. Roof Sheets

The formed pressed roof sheets are 5/32" (PS 552 HSS). These sheets include a one (1) step curved arch and trough hatch coaming. The roof sheets extend between the partition sheets and from the partition sheets to the end of the car, and to each side plate and are welded thereto.

b. Roof Reinforcement @ End

The 1/4" (PS 552 HSS) pressed formed roof sheet at end and the 3/16" (PS 551 HSS) end hatch coaming are reinforced by a 3/16" (PS 552 HSS) pressed formed hatch frame at end for the width of the hatch opening, and extends from the coaming to the end of the car, and is welded thereto.

Additionally, the connection of the longitudinal roof sheet, hatch frame at end, and roof sheet at end are reinforced by a 1/2" (PS 550 HSS) bar.

c. Roof Hatch Covers

The roof hatch covers, four (4) per car, are of fiberglass design with rubber gaskets.

Each section of the cover is hinged and arranged to swing open to the side of the car and is cradled to prevent contacting the running boards. The covers are provided with holddown devices with extruded rubber gaskets on the entire inner face of the holddown.

d. Running Boards

AAR approved longitudinal and latitudinal running boards.

13. SAFETY APPLIANCES

All safety appliances are FRA and AAR approved, latest design. All ladder treads and grab irons are 7/8" diameter and sill steps are 2" x 1/2".

14. JACKING PADS

Four (4) per car are provided at the body bolsters at the side sill in compliance with Paragraph 2.1.5.21 in the AAR Specifications for Design, Fabrication, and Construction of Freight Cars (29" minimum - 45" maximum from rail).

15. DEFECT CARD RECEPTACLE

One (1) per car to meet AAR requirements.

16. BRAKE SYSTEM

a. Air Brake

Standard ABDW-8-1/2" x 12" freight car brake equipment with butt-welded type fittings, except the 1" branch pipe is welded directly to the 1-1/4" brake pipe.

b. Braking Power - (Composition Shoes)

The brake shoe forces as determined by the brake rigging efficiency test shall be not more than 30% of the light weight of car and not less than 6.5% of the gross rail load, based on a brake cylinder pressure of 50 pounds per square inch.

The hand brake force as determined by the brake rigging efficiency test shall be not less than 11% of the gross rail load.

c. Brake Pipe

All pipe is extra heavy black steel in accordance with ASTM Specification A-53, with a 300 lb. 1-1/4" coupling at the brake pipe end nipples, per ANSI Specification B-16.3. The angle cocks are ball type with FP-5 couplings on the air hose.

d. Brake Attachments

The ABDW valve and reservoir are secured with high strength steel bolts and elastic stop nuts. Self-locking cap screws are used for securing all flanged fittings on the reservoir, cylinder, and pipe brackets. The retainer valve and angle cocks are secured with elastic stop nuts.

e. Piston Travel

7-1/4" piston travel, plus or minus 1/4". The piston travel is adjusted by a double acting automatic slack adjuster, AAR latest design.

f. Brake Rigging

The brake rigging is designed to carry forces resulting from the maximum brake cylinder pressure of 90 pounds without exceeding the AAR stress limits.

The slack adjuster and center top rod are located over the center sill with the center rod passing through the longitudinal hood.

16. BRAKE SYSTEM - (Continued)

g. Pipe Clamps

The trainline (brake pipe) is secured to the car with Pullman Standard U-bolt pipe clamps. The trainline is located down the side of the car. The AAR Standard, three (3) position retainer valve is located on the diagonal brace at the BR corner.

h. Angle Cock Holders

The angle cock holders, two (2) per car, are Pullman Standard design, using 5/8" "U" bolts and self-locking nuts.

i. Air Brake Pins

The air brake pins are AAR forged type made of open hearth steel, secured with standard commercial cotters. All holes for the brake pins are drilled.

j. Release Rod

The release rod is one-half inch (1/2") diameter open hearth steel, with closed loop ends.

k. Hand Brake

The hand brake is 1966 AAR approved, with a short release handle and a sheave wheel. The hand brake chain is 9/16, BBB.

The hand brake is secured to the car with 5/8" standard hexagon head bolts and regular hexagon nuts with the nut welded to the bolt after proper tightening.

l. Body Brake Levers

The body brake levers are one inch (1") thick.

m. Brake Rod Jaws

The brake rod jaws are drop forged.

n. Brake Lever Badge Plate

A pressed metal brake lever badge plate is attached to the slope sheet end web.

17. PAINTING AND STENCILING

a. Cleaning

Surfaces above the bottom of the side and end sills and the front of the outside hopper chutes and around the floor sheets are shot blasted.

Surfaces below the bottom of the side and end sills are thoroughly cleaned to remove rust, dirt, grease, and foreign matter.

Air brake cylinder, reservoir, ABDW valve, dirt collector, release control retainer, angle cocks, and hose are covered and protected while the car is being shot blasted. The interior of the car is swept free of dirt and loose material and blown out.

b. Fastened Joints and Laps

Fastened joints and lapping parts are given one (1) coat of A&A resistant primer before assembly.

c. Underframe

The underframe is given one (1) coat of A&A resistant vinyl primer, PPG UL-13383, followed by one (1) coat of A&A resistant vinyl finish paint, PPG UL-13384, light gray, including the exterior surfaces of the sloping floor sheets, floor bracings, bolsters, hopper chutes, gates and everything below the top of the side and end sills.

d. Body - Outside

The exterior of the car body including the outside of the roof sheets, hatch covers, hatch cover frames, operating handles and locks, is given one (1) coat of A&A resistant vinyl primer, PPG UL-13383, followed by one (1) coat of A&A resistant vinyl finish paint, PPG UL-13384, light gray. Total dry film thickness to be an average of three (3) mils.

e. Body - Inside

The interior of the car, including the inside of the hatch covers and the vertical portion of the hatch frames, is not painted.

f. Side Posts

The inside of the side posts are given one (1) coat of A&A resistant primer.

17. PAINTING AND STENCILING - (Continued)

g. Slack Adjuster

Care is taken to keep the spindle sleeve portion of the slack adjuster clean and free of paint.

h. Brake Rigging

The air brake rigging and hand brake are given one (1) coat of A&A resistant primer and one (1) coat of A&A resistant finish paint.

i. Trucks, Except Wheels, Axles and Brake Shoes

The truck side frames and bolsters are given one (1) coat of standard mineral primer by the truck manufacturer before shipment to the car builder. The trucks are given one (1) coat of ready mixed black paint by the car builder.

Precautions are taken to prevent the paint from contacting the treads and flanges of the wheels while painting the trucks.

j. Brake Lever Diagram Plate

One (1) coat of A&A resistant primer followed by one (1) coat of A&A resistant finish paint. The plate is applied to the car after the car has been completely painted.

k. Stenciling

Stenciling is done with white and black stencil paint. The arrangement is to suit AAR requirements in accordance with AAR Manual Page L-41, latest revision.

This specification does not include any special large monogram or emblem, nor does it contemplate a two-tone striping or paint scheme.

l. Ownership Marking

Ownership marking, if required, is stenciled on the car.

18. TRUCK DETAILS

- a. Capacity ----- 100-Ton
Wheel Base ----- 5'-10"
Side Bearing Centers ----- 4'-2"

b. General

The truck is arranged for hydraulic snubbing devices with the brake lever connection passing through the truck bolster. The dead lever anchor is secured to the truck bolster.

c. Axles

The axles are AAR Standard 6-1/2" x 12" freight car roller bearing type, per AAR Specification M-101, latest revision, Class "F", double normalized and tempered, with raised wheel seats turned to 250 microinch body finish, as shown on AAR Manual Page G-171, latest revision.

d. Bolsters

The truck bolsters are AAR Standard for 25-1/2" truck height including wear liner. Material is Grade "B" cast steel per AAR Specification M-210, latest revision. The center plate bowl is 14" diameter.

The bearing surface is smooth within 500 microinches concentric with the vertical center line of the body center plate.

e. Truck Center Plate Wear Liners

The truck center plates are equipped with two (2) piece center plate wear liners in accordance with AAR Manual Page D-107, latest revision.

f. Truck Center Plate Lubrication

Each truck center plate is lubricated as stated in Rule 47, Section (E) (4) of the Interchange Rules published by the Association of American Railroads.

Bearing surface of the truck center plate is cleaned and free of paint, grease, and foreign matter before applying lubricant.

g. Side Frames

The truck side frames are AAR Standard narrow pedestal type for roller bearings. Material is Grade "B" cast steel per AAR Specification M-210, latest revision. The

18. TRUCK DETAILS - (Continued)

g. Side Frames - (Continued)

wear plates are welded and lock-bolted by the side frame manufacturer.

h. Side Bearings

The truck side bearings are double roller type attached to the truck bolster and filler with two (2) 7/8" diameter rivets.

i. Wheels

The wheels are 36" diameter one (1) wear steel, Class "U", untreated. They are mounted on 6-1/2" x 12" axles at a pressure of not less than 90 tons nor more than 160 tons. Wheel markings are AAR Standard. Wheels are shot peened and magnetic particle inspected.

j. Springs - Alloy Steel - 24 D-5 o.c.; 24 D-6 i.c.,
16 D6-A i.i.c.

The truck springs are AAR Standard, 3-11/16" travel, in accordance with AAR Specification M-114, latest revision, for material and design.

k. Roller Bearings

The roller bearings are AAR Standard, no field lubrication with fitted backing rings, narrow pedestal type for 6-1/2" x 12" journals, mounted on the axles in accordance with manufacturer's latest recommendations.

l. Roller Bearing Adapters

The roller bearing adapters are latest AAR Standard for 6-1/2" x 12" journals, finish machined to suit narrow pedestal side frames, without provisions for application of heat indicators.

m. Brake Beams

The brake beams are AAR Standard No. 18 beams of the Unit type.

n. Brake Beam Wear Plates

For use with AAR Standard No. 18 Unit type beams.

18. TRUCK DETAILS - (Continued)

o. Brake Shoes & Keys

Composition brake shoes. Brake shoe keys are AAR Standard "Lockey" type.

p. Brake Pins

AAR forged type made of open hearth steel, secured with commercial cotters. All holes for the brake pins are drilled.

q. Center Pins

The center pins are 1-3/4" diameter.

r. Roller Bearing Retainer Frame Key

Without.

19. BODY SPECIALTIES

The car body is equipped with the following items:

Air Brakes	ABDW-8-1/2" x 12" w/o Branch Pipe Tee w/Butt-Welded Fittings & Ball Type Angle Cocks	New York Air Brake Co.
Brake Lever Badge Plate	18 Ga. Steel	American Nameplate
Brake Regulator	AAR Latest Design, Double Acting Automatic	Ellicon-National
Brake Rod Jaws	Weld-On Type	Schaefer Eq. Co.
Cotter Keys	Commercial	
Couplers	AAR Straight Shank Type E60C-HT Single Articulated Locklift Bottom Operating, Grade "C" Cast Steel	Buckeye Steel Castings
Coupler Yokes	AAR Standard, Y40A-HT, Grade "C" Cast Steel	Buckeye Steel Castings
Discharge Mechanism	Gravity Type 24" x 30"	Miner Enterprises
Draft Gears	AAR Approved M-901-E High Capacity	Miner Enterprises
End Platforms	AAR Approved, Two (2) Per Car, Galvanized, Perforated Plate	Apex Rwy. Products
Hand Brakes	AAR Approved Vertical Wheel Type w/Short Handle and a Sheave Wheel	Ajax Consolidated
Hand Brake Chain	9/16", BBB	
Roof Hatch Covers	Fiberglass	Apex Rwy. Products

19. BODY SPECIALTIES - (Continued)

Roof Hatch Cover
Locking Devices

Illinois Rwy. Eq. Co.

Running Boards

Steel - AAR
Approved

Apex Rwy. Products

Body Center
Plates

"Low-Profile" Type w/
Center Filler Cast
Integral, 13-7/8" Dia.
300 BHN Min.

Dresser Industries

20. TRUCK SPECIALTIES

The trucks are equipped with the following items:

Axles	AAR Standard 6-1/2" x 12" Class "F" Double Normalized & Tempered, G-171, Latest Revision	Bethlehem Steel Co.
Bolsters	AAR Approved Pattern, Grade "B" Cast Steel, 14" Diameter Bowl	Buckeye Steel Castings
Brake Beams	Unit Type No. 18	Apex Rwy. Products
Brake Beam Wear Plates	For Unit Beams	Buffalo Brake Beam Co.
Brake Levers	Drop Forged	Schaefer Eq. Co.
Brake Lever Connection	Drop Forged	Schaefer Eq. Co.
Brake Shoes	Composition - 2"	Abex Corporation
Brake Shoe Keys	"Lockey"	Abex Corporation
Horizontal Wear Liners	Manganese Steel Drop-In Type	T-Z Co.
Cotter Keys	Commercial	
Roller Bearings	6-1/2" x 12" "NFL" Type, Pregreased & Preassembled	Brenco, Inc.
Roller Bearing Adapters	6-1/2" x 12" Narrow Pedestal, w/o Heat Indicators	Hayes-Albion
Side Bearings	Double Roller	A. Stucki Co.
Side Frames	AAR Approved Pattern Grade "B" Cast Steel	Buckeye Steel Castings
Springs	3-11/16" Travel Alloy Steel	Crucible
Truck Snubbing Devices (Integral)	3-11/16" Travel S-2-C	Standard Car Truck Co.

20. TRUCK SPECIALTIES - (Continued)

Truck Snubbing
Devices
(Supplemental)

HS-7-100

A. Stucki Co.

Wheels

36" Diameter, One
(1) Wear Class "U"
Untreated

10. c/s-Griffin Wheel Co.
40 c/s-Abex Corporation